

WHAT IS CLAIMED IS:

1. Ink for ink-jet recording containing a coloring material, a humectant, a penetrant, water, and an amphiphilic star block polymer comprising a core and arms, the surface tension of the ink at 25°C being in a range of 20 to 50 mN/m, wherein each of said arms has a hydrophobic segment and a hydrophilic segment, and the hydrophilic segment is located at the end of the arm farthest from the core.

2. The ink of Claim 1, wherein the viscosity at 25°C is in a range of 1 to 10 mPa · s.

3. An ink cartridge including ink for ink-jet recording, the ink containing a coloring material, a humectant, a penetrant, water, and an amphiphilic star block polymer comprising a core and arms, the surface tension of the ink at 25°C being in a range of 20 to 50 mN/m, wherein each of said arms has a hydrophobic segment and a hydrophilic segment, and the hydrophilic segment is located at the end of the arm farthest from the core.

4. A recording apparatus including ink for ink-jet recording, the ink containing a coloring material, a humectant, a penetrant, water, and an amphiphilic star block polymer comprising a core and arms, the surface tension of the ink at 25°C being in a range of 20 to 50 mN/m, wherein each of said arms has a hydrophobic segment and a hydrophilic segment, and the hydrophilic segment is located at the end of the arm farthest from the core; and

wherein recording is performed by jetting the ink onto a recording medium.

5. Ink for ink-jet recording containing a coloring material, a humectant, a penetrant, water, and an amphiphilic heteroarm star polymer, the surface tension of the ink at 25°C being in a range of 20 to 50 mN/m.

6. The ink of Claim 5, wherein the viscosity at 25°C is in a range of 1 to 10 mPa · s.

7. An ink cartridge including ink for ink-jet recording, the ink containing a coloring

material, a humectant, a penetrant, water, and an amphiphilic heteroarm star polymer, the surface tension of the ink at 25°C being in a range of 20 to 50 mN/m.

8. A recording apparatus including ink for ink-jet recording, the ink containing a coloring material, a humectant, a penetrant, water, and an amphiphilic heteroarm star
5 polymer, the surface tension of the ink at 25°C being in a range of 20 to 50 mN/m,
wherein recording is performed by jetting the ink onto a recording medium.

9. Ink for ink-jet recording containing a coloring material, water, a surface-active material, and an additive composed of a hydrophobic segment that attaches to said coloring material and a hydrophilic segment located outside of said hydrophobic segment, the
10 surface tension of the ink at 25°C being in a range of 20 to 50 mN/m.